

02/12/2009

IN THE CLAIMS:

A full listing of all claims is as follows.

1.-15. (Canceled)

16. (Currently Amended) A process for treating tissue at a treatment site within a body lumen, comprising:

providing an elongate flexible catheter having a flexible treatment sheath mounted to a distal end region of the catheter and a dilatation balloon within the flexible treatment sheath, wherein the flexible treatment sheath is formed of an elastic material and the dilatation balloon is formed of a substantially inelastic material;

intraluminally advancing the elongate flexible catheter until the flexible treatment sheath is adjacent a predetermined treatment site;

while maintaining the dilatation balloon in an unexpanded condition, supplying a treatment fluid under pressure to a compartment formed by the treatment sheath, to elastically expand the treatment sheath radially into a substantially conforming contact with the surrounding tissue at the treatment site, cause the treatment fluid to pass through the treatment sheath from the compartment to the surrounding tissue, and maintain the treatment sheath expanded into said contact; and

while maintaining the treatment sheath in said substantially conforming contact with the surrounding tissue at the treatment site, radially expanding the dilatation balloon within the compartment, whereby the dilatation balloon acts radially upon the surrounding tissue through the treatment sheath to effect a dilatation of the surrounding tissue.

17. (Previously Presented) The process of claim 16 further comprising:

following said dilatation, radially contracting the dilatation balloon while maintaining the treatment sheath in said contact to administer the treatment fluid to the dilated tissue; and

following said administering of the treatment fluid, discontinuing the supplying of the treatment fluid to allow the treatment sheath to radially contract under a residual elastic force.